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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,849	11/15/2000	Daniel Biederman	CISCP671	4811

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EXAMINER	
MAIS, MARK A	
ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/713,849	BIEDERMAN, DANIEL	
	Examiner	Art Unit	
	Mark A. Mais	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 18, 2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Kroon (USP 6,826,153).

4. With regard to claim 1, Kroon discloses, in a communication network, a method for forwarding data across the network **[Abstract; takes into account not only priority of packets transmitted, but also time-to-live (delay tolerance), whether packet is voice or data, and the availability of the destination to receive the packets, col. 11, lines 53-61]** comprising:

associating each of two or more priority levels with different compression levels, *wherein said priority levels are assigned to data supporting both real time and non-real time communications* **[real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13; high priority streams may have low or no compression, col. 9, lines 51-53; low priority streams necessarily have higher compression]**;

receiving data *comprising packets, wherein at least some of the packets support real time and least some of the packets support non-real time communications* **[Figs. 1-3, radio 200 receives both data and voice packets, col. 4, lines 28-29]**;

assigning one of said priority levels to said data, wherein said priority level is based on a delay tolerance of said data and data supporting real time communication has a higher priority level than data not supporting real time communication **[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13]**;

selecting a compression level for said data based on priority level **[compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets**

more readily than real-time video packets based on bandwidth requirements]; and sending said data through said network **[Abstract]**.

5. With regard to claim 10, Kroon discloses, in a digital communication network, a method for forwarding packets across the network **[Abstract; takes into account not only priority of packets transmitted, but also time-to-live (delay tolerance), whether packet is voice or data, and the availability of the destination to receive the packets, col. 11, lines 53-61]** comprising:

associating each of two or more priority levels with different compression levels, wherein said priority levels are assigned to data supporting both real time and non-real time communications **[real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13; high priority streams may have low or no compression, col. 9, lines 51-53; low priority streams necessarily have higher compression]**;

providing a data compression system having a variable compression level **[compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth requirements]**;

inputting the packets **[Figs. 1-3, radio 200 receives both data and voice packets, col. 4, lines 28-29]** to the data compression system while adjusting the variable compression level for individual ones of the packets responsive to priority level of the packets, wherein said priority level is based on a delay tolerance of said packets and packets supporting real time communication have a higher priority level than packets not supporting real time communication

[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13]; and sending the packets as compressed through the network **[Abstract]** .

6. With regard to claim 11, Kroon discloses, in a digital communication network, apparatus for forwarding data across the network **[Abstract; takes into account not only priority of packets transmitted, but also time-to-live (delay tolerance), whether packet is voice or data, and the availability of the destination to receive the packets, col. 11, lines 53-61]** comprising:

a compression switch that receives the data **[Figs. 1-3, radio 200 receives both data and voice packets, col. 4, lines 28-29]** and assigns a compression level to the data responsive to a priority level of the data, wherein said priority level is based on a delay tolerance of said data *is assigned to data supporting both real time and non-real time communications* **[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13]**;

a compression system that compresses the data according to the compression level **[compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth**

requirements]; and an output interface that forwards the data across the network as compressed by the compression system **[Abstract]**.

7. With regard to claim 16, Kroon discloses a computer program product **[inherent]** for forwarding data across a network **[Abstract; takes into account not only priority of packets transmitted, but also time-to-live (delay tolerance), whether packet is voice or data, and the availability of the destination to receive the packets, col. 11, lines 53-61]** comprising:

code **[inherent]** *that associates each of two or more priority levels with different compression levels, wherein said priority levels are assigned to data supporting both real time and non-real time communications***[real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13; high priority streams may have low or no compression, col. 9, lines 51-53; low priority streams necessarily have higher compression]**;

code **[inherent]** that assigns a priority level to the data, wherein said priority level is based on a delay tolerance of said data and data supporting real time communication has a higher priority level than data not supporting real time communication; code that selects a compression level for said data based on priority level **[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13]**;

code **[inherent]** that compresses data according to the priority level **[compression is based on priority wherein the conglomeration manager determines if compression is even**

desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth requirements];

code **[inherent]** that sends the data through the network **[Abstract]**; and a computer-readable storage medium that stores the codes **[Abstract]**.

8. With regard to claim 25, Kroon discloses a computer program product for forwarding packets across a network **[Abstract; takes into account not only priority of packets transmitted, but also time-to-live (delay tolerance), whether packet is voice or data, and the availability of the destination to receive the packets, col. 11, lines 53-61]** comprising:

code **[inherent]** that provides a data compression system having a variable compression level *communications***[real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13; high priority streams may have low or no compression, col. 9, lines 51-53; low priority streams necessarily have higher compression]**;

code **[inherent]** that inputs the packets **[Figs. 1-3, radio 200 receives both data and voice packets, col. 4, lines 28-29]** to the data compression system while adjusting the variable compression level for individual ones of the packets responsive to priority level of the packets **[compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth requirements]**, wherein said priority level is based on a delay tolerance of said packets and *is assigned to data supporting both real time and non-real time communications* **[priority is based**

on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13]; code **[inherent]** that sends the packets as compressed through the network **[Abstract]**; and a computer-readable storage medium that stores the codes **[inherent]**.

9. With regard to claim 26, Kroon discloses, in a data communication network, apparatus for forwarding data across the network **[Abstract; takes into account not only priority of packets transmitted, but also time-to-live (delay tolerance), whether packet is voice or data, and the availability of the destination to receive the packets, col. 11, lines 53-61]** comprising:

means for associating each of two or more priority levels with different compression levels, wherein said priority levels are assigned to data supporting both real time and non-real time communications **[real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13; high priority streams may have low or no compression, col. 9, lines 51-53; low priority streams necessarily have higher compression]**;

means for assigning a priority level to the data **[Figs. 1-3, radio 200 receives both data and voice packets, col. 4, lines 28-29]**, wherein said priority level is based on a delay tolerance of said data and data supporting real time communication has a higher priority level than packets not supporting real time communication *communications* **[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay**

tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13];

means for selecting the data for data compression responsive to the priority level **[compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth requirements]**; and means for sending the data through the network **[Abstract]**.

10. With regard to claim 27, Kroon discloses, in a packet switched network, apparatus for forwarding packets across the network **[Abstract; takes into account not only priority of packets transmitted, but also time-to-live (delay tolerance), whether packet is voice or data, and the availability of the destination to receive the packets, col. 11, lines 53-61]** comprising:

means for compressing data using a variable compression level **[real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13; high priority streams may have low or no compression, col. 9, lines 51-53; low priority streams necessarily have higher compression]**;

means for inputting the packets **[Figs. 1-3, radio 200 receives both data and voice packets, col. 4, lines 28-29]** to the compressing means while adjusting the variable compression level for individual ones of the packets responsive to priority level of the packets **[compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth requirements]**, wherein said

priority level is based on a delay tolerance of said packets and *is assigned to data supporting both real time and non-real time communications* **[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13]**; and means for sending the packets as compressed through the network **[Abstract]**.

11. With regard to claim 2, Kroon discloses compressing the data only if the priority level is below a threshold **[this is interpreted as the compressing data only if the priority level/delay tolerance/compression scheme will actually reduce the bandwidth being used (i.e., threshold), col. 3, lines 39-42; compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65]**.

12. With regard to claim 3, Kroon discloses

compressing the data according to the priority level prior to sending the data through the network **[compression is performed; moreover, a determination is made as to if the receiving station is even available before forwarding the packets (increasing efficiency), col. 9, lines 54-59]**.

13. With regard to claims 4, 6, 12, 19, and 21, Kroon discloses

determining the compression level according to an inverse relationship between the compression level and the priority level so that high priority traffic is favored in allocating

bandwidth **[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13; compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth requirements (inverse relationship)]**.

14. With regard to claims 5, 18, and 20, Kroon discloses

determining a compression level for the data based on the priority level and network congestion; and compressing said data according to said priority level prior to sending said data through said network **[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are low priority, col. 8, lines 8, lines 3-13; compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth requirements (inverse relationship)]**.

15. With regard to claims 7, 13, 16, and 22, Kroon discloses

setting a threshold priority level for compression eligibility based on network congestion; and compressing the data only if the priority level is below the threshold **[this is interpreted as**

the compressing data only if the priority level/delay tolerance/compression scheme will actually reduce the bandwidth being used (i.e., threshold based on network congestion), col. 3, lines 39-42; compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65].

16. With regard to claims 8, 15, and 24, Kroon discloses that the priority level corresponds to a quality of service class **[assigning a ranking of urgency of packets based on both the sender-assigned priority (interpreted as quality of service) and time-to-live, col. 6, lines 42-51]**.

17. With regard to claims 9, 14, and 23, Kroon discloses that the data comprises a packet **[Figs. 1-3, radio 200 receives both data and voice packets, col. 4, lines 28-29]**.

18. With regard to claim 28, Kroon discloses that the data compression comprises at least three different levels of compression corresponding to three different priority levels **[several (col. 1, lines 40-44) variable (i.e., not specific) compression schemes are addressed: no compression, low compression, higher compression, col. 9, lines 51-53; col. 9, lines 59-63]**.

19. With regard to claim 29, Kroon discloses that data having a low priority level assigned thereto has a higher compression level and a longer processing delay than data having a higher priority assigned thereto **[priority is based on both real-time (voice or video) and non-real-time (data as well as time to live (interpreted as a delay tolerance), col. 6, lines 35-45; real-time streams such as voice and video are high priority and non-real time data packets are**

low priority, col. 8, lines 8, lines 3-13; compression is based on priority wherein the conglomeration manager determines if compression is even desirable, col. 9, lines 35-65; this is interpreted as compressing non-real time data packets more readily than real-time video packets based on bandwidth requirements (inverse relationship)].

Response to Arguments

20. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Biederman (USP 7,069,342), Communication system with content-based data compression.

(b) Kao et al. (USP 7,133,417), Multipath voice-switching method and apparatus.

(c) Tasker (USP 7,068,594), Method and apparatus for fault tolerant permanent voice calls in voice-over-packet systems.

(d) Ghosh et al. (USP 6,865,187), Method and apparatus using transition state protocol signaling for fax transport manner capability exchange.

(e) Chen et al. (USP 6,611,531)l, Method and apparatus for routing integrated data, voice, and video traffic.

(f) Li et al. (USP 7,161,931), Voice and data exchange over a packet based network.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is 572-272-3138. The examiner can normally be reached on M-Th 5am-4pm.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAM
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